

REMARKS/ARGUMENTS

The present amendment is in response to the Advisory Action mailed April 6, 2004, in which Claims 1 through 10, 13, 14, 17 and 18 were rejected. Applicant has thoroughly reviewed the outstanding Office Action including the Examiner's remarks and the reference cited therein. The following remarks are believed to be fully responsive to the Office Action and, when coupled with the amendments made herein, are believed to render all claims at issue patentably distinguishable over the cited references.

The specification and Claims 1, 10, 13 and 17 are amended herein. Claims 9, 11, 12, 15, 16, 19 and 20 are cancelled. No claims are added. Accordingly, Claims 1 through 8, 10, 14, 17, and 18 remain pending.

More particularly, the discharge path that the discharge current flows through of the claimed protective device is set forth in amended Claims 1, 13 and 17.

By disclosing in a patent application a device that inherently performs a function, operates according to a theory, or has an advantage, a patent applicant necessarily discloses that function, theory or advantage even though he says nothing concerning it. The application may later be amended to recite the function, theory or advantage without introducing prohibited new matter.

The elements disclosed in Claims 1, 13 and 17 inherently perform that the discharge current flows through different discharge paths before the thyristor being turned on and after the thyristor being turned on. Thus, applicant

Appl. No. 09/912,288

Amdt. Dated May 28, 2004

Reply to Office action of April 6, 2004

respectfully submits that the above amendment to the specification and claims does not add any new matter of the claimed invention.

All the changes are made for clarification and are based on the application and drawings as originally filed. It is respectfully submitted that no new matter is added.

Applicant respectfully requests reconsideration in light of the above amendments and the following remarks.

CLAIM REJECTIONS - 35 U.S.C. SECTION 103(a)

The examiner Stated that Figure 9 of Narita et al. clearly illustrates the thyristor and zener diode orientation between a bonding pad, cathode gate and common discharge line as defined by Independent Claims 13 and 17, with the sole exception of the bipolar transistor details of the thyristor. The Examiner also stated that the well known bipolar transistor details were relied upon by the Hurst et al.

Applicant respectfully requests reconsideration of the rejection because Claims 1-8, 10, 13, 14, 17 and 18 are nonobvious in view of Narita et al. and Hurst et al.

As shown in FIG. 1 disclosed by Hurst et al., when a positive electrostatic pulse is applied to, for example, the pin 2 with respect to the pin 1 as a reference point, a discharge path is formed of the pin 2 → the thyristor T1 of the pin 2 → the common bus line 14 → the diode D1 of the pin 1 → the pin 1.

If connect the triggering device (D10) disclosed by Narita et al. between the

cathode gate and the anode of thyristors disclosed by Hurst et al., the principle of operation of the reference disclosed by Hurst et al. is modified.

When the triggering device (D10) is connected to thyristors of the pins 1-n and a positive electrostatic pulse is applied to, for example, the pin 2 with respect to the pin 1 as a reference point, a discharge current flows through a discharge path of the pin 2 → the triggering device (D10) connecting to the thyristor T1 of the pin 2 → the common bus line 14 → the diode D1 of the pin 1 → the pin 1. And then, the discharge path changes because the thyristor T1 of the pin 2 is triggered to the conductive state. After the thyristor T1 of the pin 2 is triggered to the conductive state, the discharge path becomes of the pin 2 → the thyristor T1 of the pin 2 → the common bus line 14 → the diode D1 of the pin 1 → the pin 1. The principle of operation of the reference disclosed by Hurst et al. is modified when the reference disclosed by Hurst et al. is modified in view of the reference disclosed by Narita et al. Thus the teachings of the references are not sufficient to render the claimed invention obvious.

Furthermore, there is no suggestion or motivation for the thought that the diodes D1 of the pins 1-n disclosed by Hurst et al. can be replaced by the zener diode (D10) disclosed by Narita et al. As shown in Fig. 9 disclosed by Narita et al., the diode D1 and the thyristor element T1 are connected in parallel. The zener diode D10 is provided in parallel to the thyristor element T1. The zener diode D10 and diode D1 both connect to the thyristor element T1, as shown in Fig. 9 disclosed by Narita et al. Thus one skilled in the art may obtain the structure including both the diodes D1 and zener diodes D10 that connect to

Appl. No. 09/912,288

Amdt. Dated May 28, 2004

Reply to Office action of April 6, 2004

thyristors relied upon the Hurst et al. in view of the Narita et al. However, it is so difficult and nonobvious to obtain the structure, including zener diodes that connect to thyristors, of the claimed electrostatic discharge protective device according to the structure disclosed by Hurst et al. in view of the structure disclosed by Narita et al. Thus the claimed invention is nonobvious.

Applicant respectfully submits that Claims 1 through 8, 10, 13, 14, 17 and 18 as presently set forth are patentable over the art of record.

CONCLUSION

In light of the above amendments and remarks, Applicant respectfully submits that all pending Claims 1 through 8, 10, 14, 17, and 18 as currently presented are in condition for allowance. If, for any reason, the Examiner disagrees, please call the undersigned attorney at 248-433-7552 in an effort to resolve any matter still outstanding *before* issuing another action. The undersigned attorney is confident that any issue which might remain can readily be worked out by telephone.

Appl. No. 09/912,288

Amdt. Dated May 28, 2004

Reply to Office action of April 6, 2004

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,



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